

SHORT COMMUNICATIONS

TAXONOMY AND DISTRIBUTION OF *EDOTEA* (= *TROPEDOTEA*) *LYONSI* (MENZIES AND KRUCZYNSKI, 1983) N. COMB. (CRUSTACEA: ISOPODA: IDOTEIDAE)

GARY D. GOEKE AND RICHARD W. HEARD, JR.

Fisheries and Parasitology Sections, Gulf Coast Research Laboratory
Ocean Springs, Mississippi 39564

ABSTRACT *Tropedotea lyonsi* Menzies and Kruczynski, 1983, is reported from the waters off Alabama southeastward to Cape Romano, Florida. The monotypic genus *Tropedotea* was recently erected on the basis of coxal plates of pereonites V to VII visible in dorsal view and a reduced number of articles in both antennae. Pereonites V to VIII are also visible in dorsal view in *Edotea* Guérin-Ménéville, 1843, and the number of articles in antenna 1 and 2 of *Tropedotea* Menzies and Kruczynski, 1983, is the same as in *Edotea*. Hence *Tropedotea lyonsi* is assigned to the genus *Edotea* and *Tropedotea* is designated a junior synonym of *Edotea*.

A total of 40 individuals of *Tropedotea lyonsi* Menzies and Kruczynski, 1983, were collected with a box core from 12 stations (Figure 1) during the Outer Continental Shelf studies of the Minerals Management Service (formerly the Bureau of Land Management) along the west coast of Florida and in the northern Gulf. The monotypic genus *Tropedotea* Menzies and Kruczynski, 1983, was distinguished from *Edotea* Guérin-Ménéville, 1843, by having coxal plates visible in dorsal view, antenna 1 consisting of 4 articles and antenna 2 with 5 articles. The remaining characters listed for the genus (e.g., pleon of 2 partly fused segments, maxilliped triarticulate, pereopods 1-7 subsimilar, etc.) are not unique but characteristic of other genera or the family Idoteidae as a whole.

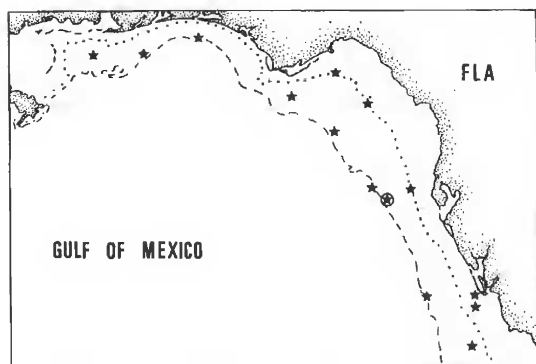


Figure 1. Distribution of *Edotea* (= *Tropedotea*) *lyonsi* in the eastern Gulf of Mexico. Circled star is type locality. Depth contours are 20 and 40 meters.

Edotea is diagnosed as having coxal plates not visible in dorsal view (Richardson 1905, p. 394, Menzies and Frankenberg 1966, p. 21). *Tropedotea lyonsi* has coxal plates visible in dorsal view, although they are difficult to distinguish. This character is not unique to the genus *Tropedotea* and until now has been apparently overlooked in the genus *Edotea*. *Edotea triloba* (Say, 1818) (= *E. montosa* Stimpson, 1853) from the northern Gulf of Mexico, from the coast of Georgia, and from Newport, Rhode Island, have indications of the coxal plates on pereonites V to VII in dorsal view, incompletely fused with pereonites V to VII. Under sufficient magnification, the remnants of the articulation may be seen, the imperfect fusion evident in both juveniles and adults. The generic diagnosis of *Edotea* should be emended to state coxal plates imperfectly fused to pereonites V to VII and partly visible in dorsal view.

The second distinctive feature given by Menzies and Kruczynski for the genus *Tropedotea* was the number of antennal articles, 4 in antenna 1 and 5 in antenna 2; however, the basal article of antenna 1 and the minute 6th article on antenna 2 were overlooked in the original description of *T. lyonsi*. An examination of the paratype has shown the antennae of *T. lyonsi* to be in agreement with *Edotea* in the number of articles of both antennae. Dr. T. E. Bowman (U. S. National Museum of Natural History, *in litt.*) has confirmed our observations on the type specimen.

As noted previously, the remaining characters described for the genus *Tropedotea* are shared by other genera within the family Idoteidae. We consider the bilobed frontal lamina of the cephalon and the presence of a pair of bifid spines on the carpus of each pereopod of *T. lyonsi* as specific rather than generic characters. For the above reasons we assign *Tropedotea lyonsi* Menzies and Kruczynski, 1983, to the genus *Edotea* Guérin-Ménéville, 1843, and consider *Tropedotea* Menzies and Kruczynski, 1983, a junior synonym of *Edotea*.

Edotea lyonsi (Menzies and Kruczynski, 1983),
new combination.

Tropedotea lyonsi Menzies and Kruczynski, 1983, p. 10,
figure 3.

Material Examined — 1 ♀, PARATYPE, 14 November 1967, dredge, 26°24'N, 82°28'W, 18 m. USNM 204998, 1 ♂, 4 ♀♀, July 1976; 1 ♂, 1 ♀, September 1977, 29°54'N, 87°24'W, 27 m, fine sand. 1 ♂, June 1975, 29°33'N, 87°24'W, 83 m, coarse sand. 1 ♀, September 1977, 30°08'N, 86°30'W, 40 m, medium sand. 5 ♀♀, June 1975, 29°12'N, 85°00'W, 28 m, medium sand. 1 ♂, July 1976, 29°36'N, 84°18'W, 19 m, silty fine sand. 3 ♀♀, June 1975; 1 ♀, July 1976, 29°01'N, 83°45'W, 21 m, medium sand. 1 ♂, 1 ♀, August 1977, 28°42'N, 84°18'W, 37 m, silty fine sand. 2 ♀♀, June 1975, 27°59'N, 83°42'W, 36 m, silty fine sand. 2 ♀♀, July 1976, 27°59'N, 83°08'W, 17 m, very fine sand. 7 ♂♂, 3 ♀♀, September 1977, 26°25'N, 82°59'W, 39 m, fine sand. GCRL 1119, 1 ♀, May 1975; GCRL 1120, 1 ♀, September 1977, 26°25'N, 82°15'W, 10 m, very fine sand. 1 ♀, September 1977; 2 ♀♀, November 1977, 26°45'N, 82°20'W, 26 m, fine sand (Invertebrate Section Collection, GCRL).

Diagnosis — Cephalon twice as wide as long, frontal lamina bilobate, visible in dorsal view; dorsal crest of cephalon bilobate, acutely raised; antenna 1 with 5 articles, last minute (Figure 2C), antenna 2 with 6 articles, last minute; pereopods 1 to 7 with 2 bifid spines on carpus; lateral margins of pereonites 1, 5, 6, and 7 rounded, lateral margins of pereonites 2, 3, and 4 angular and somewhat bilobate, dorsal boss of pleosome low, little indication of fusion in pleosomal segments; appendix masculina with single row of transverse spines, about 8 in number (Figure 2A, B).

A great deal of variation is present within *Edotea triloba* and has led to taxonomic confusion. Many workers still

recognize *E. montosa* Stimpson, 1853, and *E. acuta* Richardson, 1900, as valid taxa. This is despite the work of Wallace (1915, p. 24) who reported the variation of *E. triloba* (Say, 1818) is extensive. He synonymized the above three names, stating "there appears to be, therefore, no good reason for separating *E. montosa* and *E. acuta* from *E. triloba*" (p. 26). Dr. T. E. Bowman has indicated his agreement with Wallace's conclusion (*in litt.*).

We examined our specimens of *Edotea lyonsi* to document possible intraspecific variation. No marked variation was found among the specimens during this study. Minor differences in the shapes of the frontal lamina of the cephalon and the lateral margins of the pereonites from the original description were attributable to sexual dimorphism or to growth stages. No significant variation was noted in these or the development of the dorsal boss of the pleosome.

Comparison of the appendix masculina of male *E. lyonsi* with published illustrations of that of *E. montosa* (Menzies and Frankenberg, 1966, Figure 2f) and with specimens of *E. triloba* from both Atlantic and Gulf populations has shown several discrepancies that may be of diagnostic value. A difference was noted in the presence of fewer spines on *E. lyonsi* than in *E. triloba*. The apex of the appendix masculina also reaches far beyond the endopod in *E. lyonsi* and only slightly beyond in *E. triloba*.

Little ecological or distributional information is available for *E. lyonsi* since the type material was based on only two specimens from a single collecting site in 18 m of water off Tampa Bay, Florida. Our collection data indicate that *Edotea lyonsi* is most common in marine waters from 10 to 40 meters deep on fine to medium sand substrata having high carbonate content. Associated species included the amphipods *Acanthohaustorius* sp.; *Eudevenopus honduranus* Thomas and Barnard, 1983; *Metharpinia floridana* (Shoemaker, 1933); *Ampelisca bicarinata* Goeke and Heard, 1983; and the shrimp *Leptochela papulata* Chace, 1976. These taxa are typically sand-dwelling species and support the observation *E. lyonsi* is common on sand bottoms.

ACKNOWLEDGMENTS

The authors wish to thank Thomas E. Bowman (National Museum of Natural History) for his examination of the holotype of *Edotea lyonsi* and his comments on the manuscript. David K. Camp (Florida Department of Natural Resources) also made valuable comments on the manuscript and loaned us the paratype of *E. lyonsi* for study. The specimens (other than the type material) used in this study were collected under Bureau of Land Management contracts to the State University System of Florida Institute of Oceanography (contract 08550-CT-11) and to Dames and Moore (contract AA550-CT7-34) during a baseline study of the continental shelf of the eastern Gulf of Mexico.

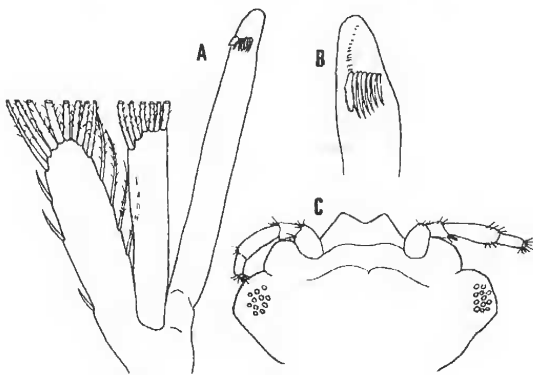


Figure 2. *Edotea* (= *Tropedotea*) *lyonsi*. A) pleopod 2 of male, B) detail of appendix masculina, C) frontal margin of cephalon (paratype).

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